

## **Children and the world's future**

*Researchers found that nowadays children have better prepared brains than past generations' do. Educate them is a real challenge*

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Teachers were the first to acknowledge they are dealing with children who go to classrooms at seven years old with knowledge, interests and curiosities they cannot correspond. They feel that children become bored with traditional education methods. "We know that kid's education in Brazil and the world must change radically in the coming years," says Elvira Souza Lima, a Brazilian who does research about child brain and new methods of education at Stanford University, in the United States.

Many parents also realize that there is something fascinating in the quality of the surprising and usually disconcerting questions of their small children. Says the American neuroscientist Gerald Edelman: "I do not know if the children of today are more imaginative or happier, but they are more attuned to the culture of their time. I think this is the first children generation that is at the forefront of a change in society."

A report of the Dana Alliance for Brain Initiatives, which brings together 173 neuroscientists focused on issues involving the functioning of the brain, cites more than 100 discoveries made recently in this area. One is about the effect of technologic evolution in brain's children physical stimulation. Scientists are discovering with amazement that, physically, the children's brains develop more than their ancestors' do. Their 1.5 kilogram of brain mass, with 100 billion nerve cells linked each other by an unimaginable network of 100 trillion connections receive much more sound stimuli, visual, olfactory and intellectual challenges.

Researchers from Baylor College of Medicine in Houston, USA used two machines that allow them to observe the brain in operation and determine which neurons activate to solve a problem. They found that the brain's development of children who do not play much and do not have much physical contact with others is 20% to 30% lower than normal for their age. Deprived of a stimulating environment, the child's brain suffers. At the other hand, richer experiences produce richer brains. "Experience is the chief architect of the brain", says Bruce Perry, one of the researchers from Baylor.

Harry Chugani, a researcher from Wayne State University in Detroit, usually compares the different areas of children's brain to a road system. "Lanes are enhanced the more intense traffic is. Those that are rarely used remain full of holes or covered with weeds."

Brilliant children have always existed. The phenomenon registered now is not the population of geniuses' explosion. What the experts are detecting is an upward movement at children's average performance – and the necessity of education methods' adaptation. The today's children are not linear thinking persons: their brains deal with a combination of images. The difference between this and the past generations is similar of that between the book and the video.

Dealing with young minds is a dramatic challenge for parents and teachers who grow in a world in which following the book was a guarantee to achieve knowledge; and the only source of information was the master's experience. Many fundamental changes have already occurred. When the time comes, it is possible today's children could stop the lack between dream and reality.